Application Scrial No.: 10/521,335 Amendment and Response to October 17, 2006 Final Office Action

## REMARKS

Claims 23 through 33 are in the application. Claims 31 and 32 have been amended to overcome the claim objections. In particular, claim 31 is amended to refer to independent claim 23 and claim 32 has been amended to remove the phrase "of the or each" proceeding the phrase "optical waveguide". No new matter is added and the claims are believed in condition for allowance.

In the office action dated October 17, 2006, the Examiner rejected claims 23-25, 31 and 32 as obvious over the Hubner reference (WO 00/70307), and claim 26 over Hubner in view of Allsop (EP 1372006A1), and claims 27-30 and 33 over Hubner in view of Wilson (WO 93/22624). As discussed in the telephone interview with Examiner Chu and Primary Examiner Michelle Connoley-Kushaw, the Hubner reference fails to teach or suggest (or render obvious) the claims of the present application, at least because Hubner fails to teach or suggest a surface profiling apparatus having optical detection means optically coupled to the output end of an optical waveguide and being operable to measure the amplitude of a detected optical signal at least one harmonic of the modulation frequency in order to detect changes in the spectral transmission profile of the optical waveguide grating curvature sensing device being interrogated and to thereby determine the curvature experienced by the optical waveguide grating curvature sensing device. Further, neither the Allsop or the Wilson references provide this feature. As such, each of the currently presented claims are believed patentable.

Applicants thank Examiner Chu and Primary Examiner Michelle Connoley-Kushaw for the courtesy of the interview, in which the Hubner reference and claim 23 were discussed.

Agreement was reached that claim 23 is patentable over the references.

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## CONCLUSION

Accordingly, Applicants respectfully request allowance of the pending claims. If any issues remain, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned via telephone at (203) 972-0081.

Respectfully submitted,

December 15, 2006

Date

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